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American Anthropologist

NEW SERIES

VOL. 11

OCTOBER—DECEMBER, 1909

No. 4

THE INSCRIPTIONS OF NARANJO, NORTHERN GUATEMALA¹

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THE ruins of Naranjo are situated in the northeastern part of the Republic of Guatemala, in the Department of Peten, not far from the boundary of British Honduras. The surrounding country, for the greater part, is extremely low, and supports a dense tropical vegetation which has destroyed most of the buildings of the city. This site was first brought to European notice through the efforts of The Peabody Museum of American Archæology and Ethnology of Harvard University. In 1905 this institution sent an expedition to northern Guatemala in charge of Mr Teobert Maler, during the course of which the ruins of Naranjo were visited and mapped, and photographs made of the various monuments found there. It is upon these photographs taken by Mr Maler, together with his description and map of the site, that the following discussion of the inscriptions is based.²

The ancient city of Naranjo, in so far as it is concerned here, is composed of five courts (fig. 100)³ in a long east-and-west line, termi-

¹ Work done in partial fulfilment of the requirements for the degree of Doctor of Philosophy in the Department of Anthropology, Harvard University.

² The results of this expedition were published in the *Memoirs of The Peabody Museum of American Archæology and Ethnology, Harvard University*, vol. IV, nos. 1 and 2, by Teobert Maler. No. 3, the concluding number of this volume, is in course of preparation.

³ This map is based on Mr Maler's sketch map of Naranjo, figured on p. 83 of his text in the *Memoir of The Peabody Museum* above mentioned. Certain details irrelevant to this article have been omitted; the courts have been lettered and the structures surrounding them numbered.

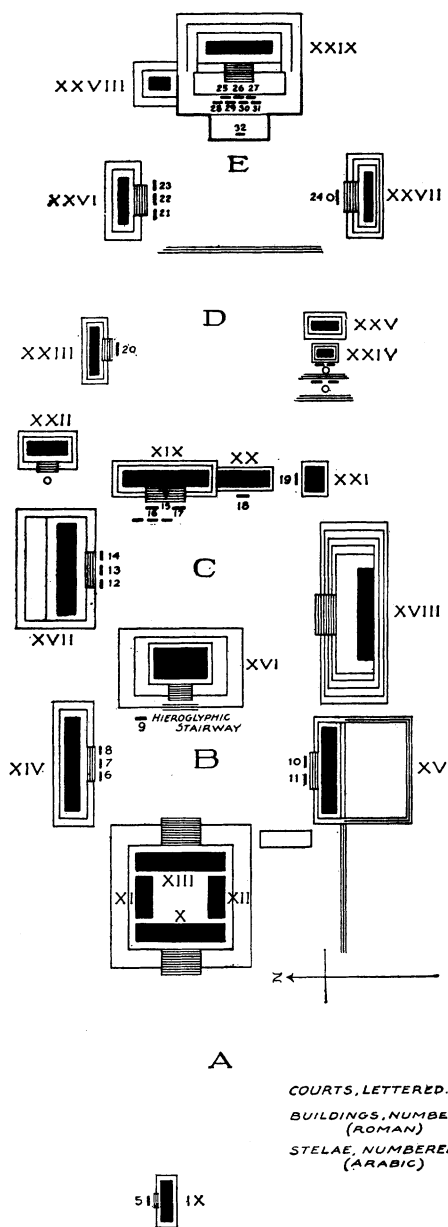


FIG. 100. — Map of part of Naranjo.

nated at the western end by a large, partially natural elevation called by Mr Maler "The Acropolis," and at the eastern end by a quarry from which the building material for the various structures of the city was taken. In addition to these courts and the structures which surround them, there are a number of smaller buildings, particularly to the north, which according to Mr Maler yielded nothing worthy of note.

The inscriptions of Naranjo, like those of most other cities of the Maya culture, treat of the passage of time from a common normal date, expressed as 4 Ahau 8 Cumhu in Maya chronology, to a series of much later dates, which probably are identical with events that transpired during the occupancy of the city and are consequently of an historical nature. These inscriptions are sculptured upon limestone stelæ, of which Mr Maler numbers thirty-two, and upon the rises of the steps leading to the lower platform of Structure XVI. Eight of these stelæ, Stelæ 1, 4, 15, 16, 17, 18, 26, and

27, were not photographed, as their sculptural relief in most cases had entirely scaled off. Of the remaining twenty-four, all of which are figured, two, Stelæ 3 and 9, are so badly weathered that it is impossible to study their glyphs; and two others, Stelæ 2 and 25, apparently present no dates. This reduces the number of stelæ which it has been possible to study, to twenty — Stelæ 5, 6, 7, 8, 10, 11, 12, 13, 14, 19, 20, 21, 22, 23, 24, 28, 29, 30, 31, and 32, which together with the Hieroglyphic Stairway leading to Structure XVI, constitute the inscriptions examined in the following paper.

A list of these, as deciphered by the writer, is given in the following table, concerning the use of which a brief word of explanation may not be out of place. In the first column the names of the different stelæ examined are set down, as Stela 5, Stela 6, etc. In the second column the positions of the inscriptions on the stelæ are described, i. e., whether they are upon the fronts, backs, or sides. The third column shows the numbers of days involved in the different calculations. The fourth column sets forth the exact day and month reached by the corresponding distance number in the preceding column. The letters and figures in the fifth column locate the positions of the glyphs in the inscriptions, which represent the distance-numbers, and dates of the third and fourth columns, letters indicating the columns of glyphs from left to right, and figures the numbers of the glyphs from top to bottom. The last column on the right refers to the number of the plate in vol. IV, no. 2, of The Peabody Museum *Memoirs*, where the stela in question is figured. Finally, material in the third and fourth columns enclosed in parentheses is not actually expressed in the inscriptions by definite glyphs, but is only implied in the calculations involved. Such omissions were doubtless supplied mentally by the more learned, at least, of the inhabitants of the city, much as we would supply the year 1909, in speaking of any date as "in the current year."

TABLE OF DECIPHERED INSCRIPTIONS

Stela 5	Front (9-17-13-2-8)	9	Lamat 1		
	Cumhu.			A1, A2.	pl. 21.
	Back plain.				
	Sides plain.				

- Stela 6 Front (9-17-1-0-0) 9 Ahau 13
Cumhu. A1, A2. pl. 21.
Back described as being too weathered
to photograph.
Sides plain.
- Stela 7 Front (9-19-0-0-0) 9 Ahau 18 Mol. A1, B1. pl. 22.
Katun 19 declared in A2.
3-0 B4.
(9-19-0-3-0) 4 Ahau 18 Zac. A5, B5.
Back plain.
Sides plain.
- Stela 8 Front (9-18-13-0-0) 11 Ahau 13 Yax. A1, A2. pl. 23.
Back 9-18-10-0-0 10 Ahau 8 Zac. A1-A4, A9.
Sides plain.
- Stela 10 Front (9-17-0-2-12) 13 Eb 5 Zip. A1, B1. pl. 30.
1-19-15-8 A5, B6.
(9-19-0-0-0) 9 Ahau 18 Mol. A7, B7,
3-0 B9.
(9-19-0-3-0) 4 Ahau 18 Zac. A10.
Back plain.
Sides plain.
- Stela 11 Front (9-17-18-0-0) 6 Ahau 8
Kankin. A1. pl. 30.
Back described as being too weathered
to photograph.
- Stela 12 Front too weathered to be deciphered.
Back (9-17-0-0-12) 12 Eb 5 Pop. A1, B1. pl. 31.
1-8-8-0 A5, A6.
(9-18-8-8-12) 8 Eb 5 Uo. A7.
4 B8.
(9-18-8-8-16) 12 Cib 9 Uo. A9.
2 B14.
(9-18-8-8-18) 1 Ezanab 11 Uo. B14, B15.
2-13 D4.
(9-18-8-11-11) 2 Chuen 4 Tzec. C5.
4-11 D7.
(9-18-8-16-2) 2 Ik 15 Chen. C8.
2-11 C11.
(9-18-9-0-13) 1 Ben 6 Ceh. D11.
8-15 D14, C15.

- (9-18-9-9-8) 7 Lamat 16 Uo. C15, D16.
 4-7 E3, F3.
 (9-18-9-13-15) 3 Men 3 Yaxkin. F3, E4.
 4-5 F11.
 (9-18-10-0-0) 10 Ahau 8 Zac. E12.
 Sides plain.
- Stela 13 Front (9-17-10-0-0) 12 Ahau 8 Pax. A1, A2. pl. 32.
 Back 9-17-10-0-0 12 Ahau 8 Pax. A1-A4, B9.
 10-13-10 D14, C15.
 (9-18-0-3-10) (8 Oc 3 Chen).
 Sides plain.
- Stela 14 Front (9-17-0-0-0) 13 Ahau 18 Cumhu. A1, A2. pl. 33.
 Back 9-17-13-4-3 5 Akbal 11 Pop. A1-A4, A9.
 19-15-9 C11, D11.
 The above distance number will not lead to the final date declared in B12.
 (9-18-0-0-0) 11 Ahau 18 Mac. B12.
 Sides plain.
- Stela 19 Front (9-17-10-0-0) 12 Ahau 8 Pax. A1, B1. pl. 34.
 Back too weathered to be deciphered.
 Sides plain.
- Stela 20 Front (9-13-2-8-16) 7 Cib 14 Yax. A1, A2. pl. 35.
 Back described as too weathered to photograph.
 Sides plain.
- Stela 21 Front (9-13-9-3-2) 8 Ik 5 Zip. A1, A2. pl. 35.
 Back described as too weathered to photograph.
 Sides plain.
- Stela 22 Front (9-13-10-0-0) 7 Ahau 3 Cumhu A1, A2. pl. 36.
 Back plain.
 W. side 9-12-15-13-7 9 Manik 0 Kayab. A1-A4, A6.
 (3) hiatus apparently undeclared.
 (9-12-15-13-10) (12 Oc 3 Kayab).
 5-8 9 B8.

	(9-13-1-3-19) 5 Cauac 2 Xul. 1-0	A9, B9. A12.	
	(9-13-1-4-19) 12 Cauac 2 Yaxkin. 4-6	B12, A13. B14.	
	(9-13-1-9-5) 7 Chicchan 8 Zac. 4-9	A15, B15. B16.	
	(9-13-1-13-14) 5 Ix 17 Muan. 1-2-16	A17, B17. B19, A20.	
	W. and E. sides (9-13-2-16-10) 5 Oc 8 Cumhu.	B20, A2.	
	E. side 1-3-3	A5, B5.	
	(9-13-4-1-13) 12 Ben 1 Zip. 1-3-0	A6, B6. B7.	
	(9-13-5-4-13) 3 Ben 16 Tzec. 1-0-4	A8, B8. A10, B10.	
	(9-13-6-4-17) 3 Caban 15 Tzec. 5-7	A11, B11. A13.	
	(9-13-6-10-4) 6 Kan 2 Zac. 3-(0)-(0)	B13, A14. B17.	
	(9-13-9-10-4) (7 Kan 7 Yax). (1) hiatus apparently undeclared.		
	(9-13-9-10-5) (8 Chicchan 8 Yax). 7-15	B18.	
	(9-13-10-0-0) 7 Ahau 3 Cumhu.	A19, B19.	
Stela 23	Front too weathered to be deciphered. Back plain.		pl. 37.
	W. side 9-13-18-4-18 8 Ezanab 16 Uo. 4-17	A1-B5, B7. A17.	
	(9-13-18-9-15) 1 ¹ Men 13 Yaxkin.	B17, A18.	
	E. side 1-1-5 Add to A1-B5, B7.	A7, B7.	pl. 38.
	(9-13-19-6-3) 3 Akbal 16 Zip. 11-17	A8, B8. A16.	
	(9-14-0-0-0) 6 Ahau 13 Muan. Katun 14 declared in.	A17, B17. B18.	
Stela 24	Front (9-13-7-3-8) 9 Lamat 1 Zotz. Back plain.	A1, A2.	pl. 39.
	E. side 9-12-10-5-12 4 Eb 10 Yax. 5-7-15	A1-A4, A7. A11, B11.	

¹ The inscription incorrectly gives 2.

- (9-12-15-13-7) 9 Manik o Kayab. A12, B12.
 11-8-1 A18, B18.
- W. side (9-13-7-3-8) 9 Lamat 1 Zotz. A1, B1.
 2-14-12 B13, A14.
- (9-13-10-0-0) 7 Ahau 3 Cumhu. B14, A15.
- Stela 28 Front (9-12-19-0-0) 12 Ahau 13 Uo. A1, A2. pl. 40.
 Back plain.
 Sides plain.
- Stela 29 Front too weathered to be deciphered. pl. 41.
 Back 9-12-10-5-12 4 Eb 10 Yax. A1-A4, B7.
 3 A18.
 (9-12-10-5-15) 7 Men 13 Yax. B18, C1.
 5-7-12 C6, D6.
 (9-12-15-13-7) 9 Manik o Kayab. C7, D7.
 7-4-13 C10, D10.
 9-13-3-0-0) 9 Ahau 13 Pop. C11, D11.
 1-0-0-0 D14-D15.
 (9-14-3-0-0) 7 Ahau 18 Kankin. C16, D16.
 Sides plain.
- Stela 30 Front (9-14-3-0-0) 7 Ahau 18
 Kankin. A1, A2. pl. 42.
 on the shaft held in the figure's
 right hand.
 (9-14-2-4-0) 13 Ahau 3 Uayeb. Top.
 (14-0)
 (9-14-3-0-0) 7 Ahau 18 Kankin. Bottom.
 Back 9-14-3-0-0 7 Ahau 18 Kankin. A1, A4, B7.
 3-0-0 to be counted back-
 ward. C1, D1.
 (9-14-0-0-0) 6 Ahau 13 Muan. D2, C3.
 Katun 14 declared in. C4.
 1-3-19 C7, D7.
 (9-14-1-3-19) 3 Cauac 2 Pop. C8, D8.
 8-10 C12.
 (9-14-1-12-9) 4 Kan 12 Chen. D12, C13.
 Inscription continued in. F1.
 E2, F2.
 F3, E4.
 F4, E5.
 E8.

		F8, E9. F11, E12. F12, F13.	
	Sides plain.		
Stela 31	Front (9-14-10-0-0) 5 Ahau 3 Mac. Back described as too weathered to photograph.	A1, A2.	pl. 43.
	Sides plain.		
Stela 32	Front first date illegible. second date illegible. (9-19-3-4-1) 13 Imix 4 Ceh. 14-19 (9-19-4-1-0) 13 Ahau 18 Mol. 1 (9-19-4-1-1) 1 Imix 19 Mol. 5-13-19 (9-19-9-15-0) 13 Ahau 8 Zip. 3-(0) (9-19-10-0-0) 8 Ahau 8 Xul Throne at bottom fifteen incised glyphs.	A1. C2?, D2?, E1?. E1?. G1. H1. B4. B6, G3. H3, G4. H8. H9.	pl. 4. p. 117.
	(9-19-4-15-1) 8 Imix 14 Zotz. 12-11 (9-19-5-9-12) 12 Eb 5 Kayab.	A1, B1. B3. C3, A4.	
	Back plain.		
	Sides plain.		
Hieroglyphic Stairway.			
	Slab 5 9-10-10-0-0 13 Ahau (18 Kankin). Re-used lintel, found in place of the left half of Slab 8.	A1-A3.	pl. 26. pl. 29.
	(9-7-14-10-8) (3 Lamat) 16 Uo. 2-5-7-12	B1?. F4, G1, H1.	
	(9-10-0-0-0) 1 Ahau 8 Kayab. Katun 10 declared in.	G2, H2. G3.	

The first fact established by the above tabulation is that the city of Naranjo passed through three distinct periods of architectural activity, which doubtless were synchronous with corresponding periods of prosperity and increased power. These three periods, however, were not continuous, but were interrupted by two inter-

vals of quiet and decreased activity during which no monuments were erected. Each of these periods varied from forty to fifty years in length, and all five together show an occupancy of this site for more than two hundred and thirty years. The order of growth during this time and the sequence of the several courts of the city may be clearly traced upon the map in figure 1. Court E and probably Court D date from the middle period, and Courts C and B and probably Court A date from the final period of occupancy. For reasons which will appear below, it is impossible at present to determine what courts or structures may be referred to the first period.

The first period of the city's occupancy, or Old Naranjo, as it might be appropriately termed, is represented by a single inscription: the re-used lintel, which was found in the place of the left half of Slab 8 of the Hieroglyphic Stairway. In this position the lintel in question is obviously out of place. In shape, as well as in the character of its glyphs, it differs widely from the other inscribed slabs of the Hieroglyphic Stairway. Moreover, its original use seems to have been that of a lintel, the under surface of which was inscribed with eight or more rows of glyphs. In the re-shaping, necessary for its secondary use in the Hieroglyphic Stairway, the left-hand row of glyphs and half the right-hand row have been broken off (see pl. 29 of the Peabody Museum *Memoir* where this lintel is figured).

This fact of the re-use of the only inscription which dates from the earliest period of the city's occupancy, and its removal from the building where it originally stood, makes it difficult to say just what part of the city we should identify as Old Naranjo. It has been possible, by means of the inscriptions, to refer Courts A, B, C, D, and E to the middle and final periods with reasonable certainty; but in the absence of a single other inscription which may be assigned to the first period, and because of the uncertainty which surrounds the original position of the re-used lintel found in the Hieroglyphic Stairway, the writer has not attempted with the evidence at hand to identify any particular group of structures at this site as belonging to Old Naranjo.

Turning now to the inscription of this re-used lintel, we find that

the earliest date recorded upon it is 9-7-14-10-8 3 Lamat 16 Uo, which is carried forward by the distance number 2-5-7-12 to 9-10-0-0-0 1 Ahau 8 Kayab, the beginning day of Katun 10, declared by Glyph G3. The first of these two dates 9-7-14-10-8 3 Lamat 16 Uo, is one of the earliest in Maya chronology which it is possible to regard as contemporaneous from the modern point of view.¹ This date is twenty-four years later than Stela 9 at Copan, the earliest contemporaneous date at that city, and it is considerably earlier than any of the contemporaneous dates at Yaxchilan, Piedras Negras, Seibal, or Quirigua, and probably Palenque. The first period at Naranjo coincided with the first period at Copan, which was perhaps the oldest city of the Maya culture. This contemporaneity, indicated by the actual dates on the re-used lintel from Naranjo and the earliest monuments at Copan, Stelæ 2, 7, 9, and P, is further corroborated by resemblances in their glyphs. These resemblances consist chiefly in a greater attention to detail, particularly in the handling of the face elements, than was common in the later periods of the Maya civilization, and in a block-like treatment of the individual glyphs by which the parts were so manipulated as to accentuate the sharpness of corners, particularly noticeable in the handling of the bars denoting five.

It is interesting to note that this inscription occurs on the only inscribed lintel which Mr Maler found at Naranjo. At some other cities of the Usamacinta region, Yaxchilan, and Piedras Negras, for example, the lintel was the commonest medium for the presentation of inscriptions. This absence of the inscribed lintel at Naranjo, except during the earliest period, might indicate that the use of the lintel as a medium for the presentation of inscriptions was discontinued here early. The writer believes that systematic excavation of this site would probably uncover other inscribed lintels belonging

¹ Some Maya monuments bear dates so remote that they can refer only to mythological or traditional events. Such are the Initial Series of The Temples of the Cross, The Foliated Cross, and The Sun at Palenque, Stela C at Quirigua, and Stela C at Copan, which carry time back three thousand years before the historical period of the Maya civilization. Such dates are in no sense contemporaneous with the time in which they were sculptured, and doubtless referred to events which even the ancient Mayas regarded as mythological or traditional. "Contemporaneous," as used here, signifies that dates thus described were synchronous with the period of the erection of the monuments upon which they are sculptured.

to the later periods. Mr Maler's statements would seem to indicate the probability of this: "There were no rooms remaining in the badly ruined buildings of this city," and again, "not one façade nor a perfect interior had survived, owing to the terrible destruction of buildings by the rank tropical vegetation, which envelops everything." The lintel, always an element of weakness in Maya structures, would be the first thing to give way, and consequently in the general demolition which followed, most of the lintels would be deeply buried.

The final date on the inscribed lintel 1 Ahau 8 Kayab occurs once again at Naranjo, i. e., as the final date of Slab 6 of the Hieroglyphic Stairway. In this latter place, however, its position is not fixed in the Long Count, as was the case with the 1 Ahau 8 Kayab of the re-used lintel. This date recurs at intervals of 2-12-13-0 in the Long Count, either before or after 9-10-0-0-0. The question now arises, Just what position in the Long Count shall we assign to the 1 Ahau 8 Kayab of Slab 6? The Hieroglyphic Stairway, of which this slab forms a part, is on the eastern side of Court B, which was the last court in the city to be built, as will appear later. This would indicate that the Hieroglyphic Stairway was of late date and consequently that the 1 Ahau 8 Kayab of Slab 6 was much later than the very early 1 Ahau 8 Kayab of the re-used lintel. On the other hand, the Initial Series of Slab 5 of the Hieroglyphic Stairway is 9-10-10-0-0 13 Ahau 18 Kankin, which also would appear to be an early date. It might even be referred to the first period, since it denotes a time but ten years later than the final date on the re-used lintel. But here another element interferes with such a conclusion. The Initial Series of the Hieroglyphic Stairway is, in all probability, not a contemporaneous date. It doubtless refers to a date which was important in the early history of the city, but which was anterior to the actual sculpturing of Slab 5 and the rest of the Hieroglyphic Stairway by a very long time. The following reasons have led the writer to this conclusion:

(1) We have seen that Court B may be clearly referred to the period of the final occupancy of the city, by means of the dates on the stelæ surrounding it. Since the Hieroglyphic Stairway is on the eastern side of this court, the probabilities are that it is also a late construction.

(2) Although the Initial Series itself is early, there are other distance numbers, which the writer has been unable to connect with it, on Slabs 4, 6, 7, 8, and 10, and probably others now lost, which would bring the count up to a much later time, perhaps the beginning of the final period.

(3) The character of the glyphs is late, the block-like outlines which appear in the glyphs of the re-used lintel having almost entirely disappeared.

The Initial Series on Slab 5, 9-10-10-0-0 13 Ahau 18 Kankin, therefore is probably only the remembrance of an earlier event in the history of the city, much as we might couple the year 1776 with 1909; but it was no more contemporaneous with the building of the Hieroglyphic Stairway on that account than the Declaration of Independence would be with the inauguration of President Taft. The recurrence of the date 1 Ahau 8 Kayab on Slab 6 may be due to the fact that it was the anniversary¹ or return of an earlier 1 Ahau 8 Kayab, perhaps that of the re-used lintel. The only time this date could have fallen in the final period at Naranjo (the period from which the Hieroglyphic Stairway probably dates) was 9-17-18-3-0, which value was the third return of 1 Ahau 8 Kayab after the 1 Ahau 8 Kayab of the re-used lintel. It may be safely assumed therefore, in spite of the early date recorded in the Initial Series and the repetition of a still earlier date on Slab 6, that the Hieroglyphic Stairway was of late construction.

After the first period of activity at Naranjo there followed an interval of quiet lasting from 9-10-0-0-0 or 9-10-10-0-0 to 9-12-10-0-0, during which no monuments apparently were erected. Without any knowledge of the facts it is useless to speculate as to what caused this depression. It might have been a weak ruler, a devastating war, a failure of crops, a famine or a pestilence. Whatever cause or causes contributed to this suspension of growth, however, one thing seems clear: no inscriptions fill the gap of forty or fifty years, which now followed and continued until the beginning of the second period of the city's history.

¹A Maya date can recur only after an interval of fifty-two years, expressed as 2-12-13-0 in Maya notation. Hence an anniversary as here used means an interval not of one year but fifty-two years.

The great achievement of Middle Naranjo was the building of Court E at the eastern end of the city. Twelve stelæ stand in front of three of the four structures surrounding this court (fig. 100), Stelæ 21, 22, and 23 in front of Structure XXVI on the north side, Stela 24 in front of Structure XXVII on the south side, and Stelæ 25, 26, 27, 28, 29, 30, 31, and 32 in front of Structure XXIX (the main temple) on the east side. Structure XXVIII, the small northern annex of Structure XXIX, which rises from the second terrace of that temple, has no stelæ in front of it.

The opening date of the second period is 9-12-10-5-12 4 Eb 10 Yax, which occurs twice: as the Initial Series on both Stelæ 24 and 29. After a distance number of 5-7-15 the date 9-12-15-13-7 9 Manik o Kayab is reached, which is not only recorded on both Stelæ 24 and 29 but appears as the Initial Series of Stela 22. This is an important date apparently, since it appears on all three sides of the court. There come next three dates on the fronts of Stelæ 28, 20, and 21: 9-12-19-0-0 12 Ahau 13 Uo, 9-13-2-8-16 7 Cib 14 Yax, and 9-13-9-3-2 8 Ik 5 Zip respectively. These dates are not fixed in the Long Count, and can recur at intervals of 2-12-13-0 either before or after the values given above. However, if 2-12-13-0 is subtracted from or added to any one of them, it gives values for these dates, which fall without the middle period by a considerable margin. Consequently, since all three of the above values fall between dates recorded on other stelæ in the same court, the positions of which are fixed absolutely in the Long Count, the writer believes the above are the values which were mentally supplied with these dates by the inhabitants of the city.

Stela 20, strictly speaking, is not in Court E but Court D. According to Mr Maler, however, Court D appears to be more closely related to Court E than Court C: "To the east of the large longitudinal building (Structure XIX, Court C) with Stelæ 15-18 on its west side, another large plaza (Court D) has been formed, which by means of a filling of earth 2 to 5 meters in depth has been extended as far as the main temple (Structure XXIX, Court E) at the eastern end of the city." It would seem then, that Court D belongs to the period of Court E rather than Court C. Unfortunately the four stelæ in front of Structures XXIV and XXV are plain, and no evidence is forthcoming from them.

There is another date of the general period of Stelæ 20, 21, and 28, which must have been of some importance, since it was repeated twice on the same stela. This is 9-13-7-3-8 9 Lamat 1 Zotz, which appears as the only date on the front of Stela 24 and as an intermediate date on the back of the same stela, reached during the course of the calculation. The next date of importance seems to be 9-13-10-0-0 7 Ahau 3 Cumhu, also of the same period as Stelæ 20, 21, and 28. This is recorded in three places: as the final dates on Stelæ 22 and 24 and as the only date on the front of Stela 22. About eight years later the first date on the front of Stela 23 is reached: 9-13-18-4-18 8 Ezanab 16 Uo, which is carried forward to 9-14-0-0-0 6 Ahau 13 Muan, the beginning day of Katun 14, as the final date on the stela. This latter date is also recorded on the back of Stela 30, where the calculation was carried backward from 9-14-3-0-0 to 9-14-0-0-0 instead of forward, a very unusual proceeding. This new date 9-14-3-0-0 7 Ahau 18 Kankin is again of considerable importance, appearing three times: as the Initial Series on the back of Stela 30, as the only date on the front of the same stela, and as the final date on Stela 29. The closing date of this second period is the only date on the front of Stela 31: 9-14-10-0-0 5 Ahau 3 Mac. This reading, however, is open to some doubt, as the front of Stela 31 is badly weathered. It is a great misfortune also, that the last part of the inscription on the back of Stela 30 is so badly weathered; for it is not unlikely that the distance numbers in Glyphs E₄ and E₁₂ carry the count forward into Katun 15 or 16. If this be true, we would have in the inscription on the back of Stela 30 a partial bridging of the gap, which otherwise follows the close of the second period.

The sequence of the stelæ of Middle Naranjo, arranged according to their earliest and latest dates, is given below. The discussion of Stela 32 has been omitted here, as the dates on it indicate that it belongs to the final period of the city's occupancy.

Earliest date	Stela 24	Structure XXVII	Opening date.
" "	" 29	" XXIX	The same date.
" "	" 22	" XXVI	About five ¹ years later.

¹ The *tun* in Maya chronology is composed of three hundred and sixty days, that is about five and a quarter days shorter than the solar year. The differences given in this column are correct therefore only to the nearest year.

Only	date	Stela 28	Structure XXIX	About three years later.
"	"	" 20	" XXIII	About three years later.
Earliest date		Stela 21	Structure XXVI	About seven years later.
Final	"	" 22	" XXVI	About one year later.
"	"	" 24	" XXVII	The same date.
Earliest	"	" 23	" XXVI	About eight years later.
Final	"	" 23	" XXVI	About two years later.
Earliest	"	" 30	" XXIX	The same date.
Final	"	" 29	" XXIX	About three years later.
" 1	"	" 30	" XXIX	The same date.
Only	"	" 31	" XXIX	About seven years later.

From the above it appears that Middle Naranjo, so far as the stelæ are concerned, continued for about forty years. During this time, including the intermediate dates not given in the above table, dates were recorded at intervals ranging from three days to eight years, the longer intervals being considerably in the minority. Throughout the middle period events of sufficient importance to be recorded followed each other in quick succession. What events these dates mark is unknown, but their rapid succession shows that this period was of considerable importance in the history of the city.

Following the second period of activity, when the whole eastern end of the city was built, there came a gap from which no monuments date unless we accept the doubtful reading on the back of Stela 30, already mentioned.

The third and final period of the history of the city opens with the beginning of Katun 17. During this last period Courts B and C and probably Court A were built. Courts B and C were both begun about the same time, though work on Court C ceased about ten years before the final dates in Court B. Court A only has one date which will be discussed presently. Court B (fig. 100) contains six stelæ: Stelæ 6, 7, 8, 9, 10, and 11, and the Hieroglyphic Stairway; and Court C contains eight stelæ: Stelæ 12, 13, 14, 15, 16, 17, 18, and 19, of which four, Stelæ 15, 16, 17, and 18, were not photographed by Mr Maler.

¹ This is the latest date on Stela 30 that the writer was able to find. It is possible, however, as is pointed out above, that the distance numbers in E4 and E12 may carry the count forward to a much later time.

The earliest date of New Naranjo, as we might call the last period of the city's occupancy, is 9-17-0-0-0 13 Ahau 18 Cumhu, found on the front of Stela 14 in Court C. This is very closely followed by the earliest date on Stela 12, also in Court C, which is only twelve days later: 9-17-0-0-12 12 Eb 5 Pop. Forty days later comes the first date in Court B 9-17-0-2-12 13 Eb 5 Zip found on Stela 10, and in less than a year follows the second date in Court B 9-17-1-0-0 9 Ahau 13 Cumhu found on Stela 6. The next and probably one of the most important dates of New Naranjo, since it is recorded three times, is 9-17-10-0-0 12 Ahau 8 Pax. This appears as the only date on the front of Stela 13; as the Initial Series on the back of the same stela, and as the only date on the front of Stela 19. Both of these stelæ are in Court C.

There follows next, on Stela 5, the only date recorded in Court A. This is quite clearly 9 Lamat 1 Cumhu, though its position in the Long Count is not stated. This date may occur in 9-17-13-2-8, and at intervals of 2-12-13-0 before and after. The writer, however, believes the value of 9-17-13-2-8 to be the one intended here, for the following reasons:

(1) The value of 9-17-13-2-8 is within thirty-five days of the Initial Series on the back of Stela 14, 9-17-13-4-3 5 Akbal 11 Pop.

(2) The next earlier value for 9 Lamat 1 Cumhu would be 9-15-0-7-8, and the next higher value 10-0-5-15-8. Both of these lie beyond the extreme dates of the final period, and for this reason have been rejected.

The date following that on Stela 5, as mentioned above, is the Initial Series of Stela 14 in Court C, 9-17-13-4-3 5 Akbal 11 Pop. The next date is in Court B again on Stela 11 9-17-18-0-0 6 Ahau 8 Kankin. The closing dates on Stelæ 13 and 14, both in Court C, follow in 9-18-0-0-0 11 Ahau 18 Mac, and 9-18-0-3-10 8 Oc 3 Chen respectively. The next date of importance is 9-18-10-0-0 10 Ahau 8 Zac, which is recorded twice: as the Initial Series and earliest date on Stela 8 in Court B, and as the closing date of Stela 12 in Court C. In this latter place apparently it marks the close of building operations in Court C, since no later

dates are there recorded. There follow next two dates each of which occur twice: 9-19-0-0-0 9 Ahau 18 Mol, which is found as an intermediate date on the front of Stela 10, and also as the earliest date on the front of Stela 7; and 9-19-0-3-0 4 Ahau 18 Zac, which occurs as the final date on both the above stelæ.

Stela 32, though probably the latest stela in the city, is capable of two readings, due to the heavy shadow cast upon its final date in the photograph. If the numerical coefficient in H9 could be surely identified as 8, then the final date would be 9-19-10-0-0 8 Ahau 8 Xul. There is, however, a possibility that this coefficient may be 7¹, and if such were the case the final date becomes 9-12-4-0-0 7 Ahau 8 Xul. In support of this last reading it may be said that this stela stands in a court (Court E) the earliest date of which is only six years later than 9-12-4-0-0, and that consequently this reading is more likely to be correct than one of 9-19-10-0-0, which is a century later than the latest date recorded in Court E. While admitting these points, the writer nevertheless believes that it will be possible to show that the later and not the earlier date was the one intended here. Admitting that the coefficient of the final date in H9 looks as much like a 7 as an 8, we are obliged to seek elsewhere for our evidence. In B6 G3 there is a distance number leading from 1 Imix 19 Mol declared in A5 to 12 or 13 Ahau 8 Zip declared in H3 G4. Now if the final date in H9 is 9-12-4-0-0 7 Ahau 8 Xul, then H3 G4 becomes 9-12-3-15-0 12 Ahau 8 Zip, and A5 9-11-5-16-1 1 Imix 19 Mol. Accepting these values as the correct ones for the moment, let us see if the difference between 9-12-3-15-0 and 9-11-5-16-1 agrees with the distance-number expressed in B6 G3, which it must do if we have assigned the correct value to the final date. The difference between these two numbers expressed in Maya notation is 17-16-19. It is quite clear in plate 44 of vol. IV, no. 2, of *The Peabody Museum Memoirs*, where the photograph of Stela 32 appears, that the coefficient of B6 is 19, and that the coefficient of the first half

¹ The coefficient of H9 is composed of a horizontal bar (5) with three dots above it. If all three of these are of equal size and design, the number would be 8 quite clearly. But there is the possibility that the middle dot may be larger than either of the end ones. In this case it would serve an ornamental function only, and the number would be 7. A mold of this glyph would solve this question beyond doubt.

of G₃ may be 16. But despite the heavy shadow here, it is very plain that the coefficient of the last half of G₃ is not 17, nor in fact can it represent any number higher than 5, i. e., a single bar in Maya notation.

Since 9-12-4-0-0 7 Ahau 8 Xul will not satisfy the necessary conditions in G₃, let us try the other value for the final date suggested above by the writer. The use of 9-19-10-0-0 8 Ahau 8 Xul as the final date in H₉ presupposes a value of 9-19-9-15-0 13 Ahau 8 Zip in H₃ G₄ and 9-19-4-1-1 for 1 Imix 19 Mol in A₅. The difference between the last two of these is 5-13-19, which must appear in B₆ G₃ as before if this value for the final date be the correct one. Again, the 19 appears in B₆. But this time the coefficient of the first half of G₃ appears much more likely to be 13 than 16, i. e., two bars and three dots rather than three bars and one dot. Finally the coefficient of the last half of G₃ appears to be very much like the single bar needed here to make the required 5. For this reason, the writer has accepted as the final date of Stela 32: 9-19-10-0-0 8 Ahau 8 Xul.

That the last stela in the city should be set up in Court E, a Middle Naranjo construction, need not invalidate this latter reading. Even though building operations had ceased in Court E before the final period of the city's history, it is hardly to be supposed that in consequence this court was abandoned and that it was not in use during the final period, which we have called New Naranjo. Indeed such an interpretation of the facts would seem unreasonable. Structures the world over have continued in use centuries after their builders were forgotten, and in the case of Court E at Naranjo, only fifty years elapsed after the close of the middle period, before there was a return of building activity. A stela may very well have been set up in Court E during the final period of the occupancy of the city. It is noticeable in this connection (fig. 100) that Stela 32 does not stand in the same close relation to Structure XXIX as do the other stelæ associated with that building, all of which are on the second platform of the substructure. Stela 32, on the other hand, stands by itself on the first terrace. Without pressing the point, it seems not improbable that Stela 32 may date from a considerably later period than the other stelæ associated with Structure XXIX.

The sequence of the stelæ of New Naranjo, arranged according to their earliest and latest dates, is given below. No dates are given for the Hieroglyphic Stairway, since the writer has been unable to connect the several distance numbers recorded there with the Initial Series; and, as pointed out elsewhere, the early date of this Initial Series was probably not contemporaneous with the building of Court B and the Hieroglyphic Stairway.

Earliest date	Stela	14	Court C	Structure	XVII	Opening date.
"	"	"	12	"	"	XVII Twelve days later.
"	"	"	10	"	B	" XV Forty days later.
Only	"	"	6	"	"	" XIV About a year later.
Earliest	"	"	13	"	C	" XVII About nine years later.
Only	"	"	19	"	"	" XXI The same date.
"	"	"	5	"	A	" IX About three years later.
"	"	"	11	"	B	" XV About five years later.
Final	"	"	14	"	C	" XVII About three years later.
"	"	"	13	"	"	" XVII The same date.
Earliest	"	"	8	"	B	" XIV About ten years later.
Final	"	"	12	"	C	" XVII The same date.
"	"	"	8	"	B	" XIV About three years later.
Earliest	"	"	7	"	"	" XIV About seven years later.
Final	"	"	7	"	"	" XIV Sixty days later.
"	"	"	10	"	"	" XV The same date.
Earliest	"	"	32	"	E	" XXIX About three years later.
Final	"	"	32	"	"	" XXIX About seven years later.

It would seem from the foregoing that the final period at Naranjo lasted for about fifty years. During this time, including the intermediate dates not given above, dates were recorded at intervals ranging from one day to ten years, the longer intervals, as was the case in the middle period, being considerably in the minority.

Having reached the date of 9-19-10-0-0 8 Ahau 8 Xul as the close of activity at Naranjo, let us see where this city stood at that time in relation to the other contemporaneous sites of the Maya culture. We find that Naranjo had seen the fall of almost all the great cities of the Usamacinta and adjoining regions, Quirigua, Yaxchilan, Piedras Negras, and perhaps Palenque. Two only survive her, Copan for ten years and Seibal for thirty.

The beginning of the Tenth Cycle marked the dawn of a new era for the Maya civilization. The star of empire was moving northward to the newly-discovered Yucatan, and in the dark days which followed for the southern cities, Copan, Quirigua, Palenque, Yaxchilan, Piedras Negras, Seibal, Tikal, Naranjo, and scores of others were abandoned and their very names forgotten. As it was one of the first to come up; so was Naranjo one of the last to go down, in the final eclipse which, with the coming of the Tenth Cycle, fell so swiftly upon the great cities of the south.

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